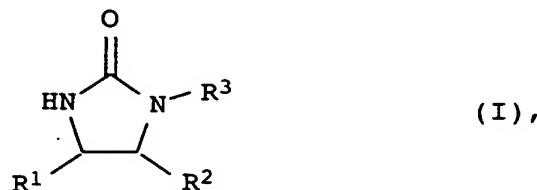


We claim:

1. A process for preparing chiral imidazolidin-2-ones of the  
5 general formula I

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in which

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R<sup>1</sup> is C<sub>1</sub>-C<sub>8</sub>-alkyl, cyclohexyl, phenyl, a C<sub>1</sub>-C<sub>6</sub>-alkyl-, halo-, nitro-, C<sub>1</sub>-C<sub>6</sub>-alkoxy-, C<sub>1</sub>-C<sub>6</sub>-alkylmercapto- or CF<sub>3</sub>-substituted phenyl radical, naphthyl or a

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C<sub>1</sub>-C<sub>6</sub>-alkyl-, halo-, nitro-, C<sub>1</sub>-C<sub>6</sub>-alkoxy- or CF<sub>3</sub>-substituted naphthyl radical,

R<sup>2</sup> is C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>2</sub>-C<sub>8</sub>-alkenyl, cyclohexyl, phenyl or a phenyl-C<sub>1</sub>-C<sub>6</sub>-alkyl radical which may be substituted by a

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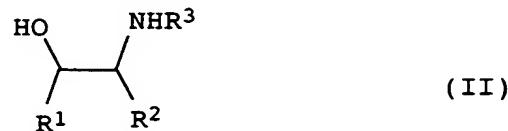
nitro, C<sub>1</sub>-C<sub>6</sub>-alkoxy, methylenedioxy or CF<sub>3</sub> radical, and

R<sup>3</sup> is C<sub>1</sub>-C<sub>12</sub>-alkyl, C<sub>2</sub>-C<sub>8</sub>-alkenyl, cyclohexyl, phenyl or a C<sub>1</sub>-C<sub>6</sub>-alkyl-, halo-, nitro-, C<sub>1</sub>-C<sub>6</sub>-alkoxy-, methylenedioxy-, dialkylamino- or CF<sub>3</sub>-substituted phenyl radical,

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by reacting a compound of the formula II or the salt thereof

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in which R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> have the abovementioned meaning,

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with urea in the presence of an ammonium salt, wherein the reaction is carried out in the presence of a polar organic solvent and the reaction takes place in solution at temperatures of from 170 to 190°C.

2. A process as claimed in claim 1, wherein an aprotic solvent is used.

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3. A process as claimed in either of claims 1 or 2, wherein N-methylpyrrolidone is employed as organic solvent.
4. A process as claimed in any of claims 1 to 3, wherein R<sup>1</sup> is phenyl and R<sup>2</sup> and R<sup>3</sup> are methyl.
5. A process as claimed in any of claims 1 to 4, wherein the reaction is carried out in the presence of proton donors, wherein an acid with a pKa of ≤ 3 is used as proton donor.
- 10 6. A process as claimed in any of claims 1 to 5, wherein para-toluenesulfonic acid is employed as proton donor.
- 15 7. A process as claimed in any of claims 1 to 6, wherein sulfamic acid is employed as proton donor.
8. A process as claimed in any of claims 1 to 7, wherein the proton donor is employed in amounts of from 0.05 to 0.6 equivalent based on the compound of the formula II.
- 20 9. A process as claimed in any of claims 1 to 8, wherein (1S,2R)-ephedrine or a salt thereof is employed as compound of the formula II.
- 25 10. A process as claimed in any of claims 1 to 9, wherein (1R,2S)-ephedrine or a salt thereof is employed as compound of the formula II.

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